

Application Type Amendment, Major
Facility Type Municipal
Major / Minor Major

NPDES PERMIT FACT SHEET INDIVIDUAL SEWAGE

Application No. PA0023213-A1
APS ID 879744
Authorization ID 1088626

Applicant and Facility Information

Applicant Name <u>Ridgway Borough</u>	Facility Name <u>Ridgway Borough STP</u>
Applicant Address <u>PO Box 149</u>	Facility Address <u>Route 949</u>
<u>Ridgway, PA 15853-0149</u>	<u>Ridgway, PA 15853-0149</u>
Applicant Contact <u>Paul McCurdy, Borough Manager</u>	Facility Contact <u>Same as applicant contact</u>
Applicant Phone <u>(814) 772-6423</u>	Facility Phone _____
Client ID <u>66627</u>	Site ID <u>249894</u>
Ch 94 Load Status <u>Not Overloaded</u>	Municipality <u>Ridgway Borough</u>
Connection Status <u>No Limitations</u>	County <u>Elk</u>
Date Application Received <u>September 11, 2015</u>	EPA Waived? <u>No</u>
Date Application Accepted <u>October 21, 2015</u>	If No, Reason <u>Major Sewage Facility</u>
Purpose of Application <u>Increasing the amount of brine water allowed to be treated from 20,000 GPD to 25,000 GPD.</u>	

Summary of Review

The applicant has requested their NPDES permit be amended to allow them to treat an additional 5,000 gallons/day of natural gas wastewater. This amendment will also relax the monitoring frequency of the indicator pollutants associated with this type of wastewater. This is based on a review of the past 3+ years of data collected on these parameters.

Approve	Deny	Signatures	Date
X		ROBERT P. HUTCHINSON PERMITS SECTION DRAFT FINAL	
X		JUSTIN C. DICKEY, P.E. ENVIRONMENTAL ENGINEER MANAGER DRAFT FINAL	
X		JOHN A. HOLDEN, P.E. REGIONAL PROGRAM MANAGER	

Discharge, Receiving Waters and Water Supply Information

Outfall No.	<u>001</u>	Design Flow (MGD)	<u>2.2</u>
Latitude	<u>41° 25' 10"</u>	Longitude	<u>-78° 45' 00"</u>
Quad Name	<u>Ridgway</u>	Quad Code	<u>03094</u>
Wastewater Description:	<u>Effluent</u>		

Receiving Waters	<u>Clarion River</u>	Stream Code	<u>49224</u>
NHD Com ID	<u>102665829</u>	RMI	<u>94.1</u>
Drainage Area	<u>303</u>	Yield (cfs/mi ²)	<u>0.29</u>
Q ₇₋₁₀ Flow (cfs)	<u>87.87</u>	Q ₇₋₁₀ Basis	<u>See 'Other Comments'</u>
Elevation (ft)	<u>1380</u>	Slope (ft/ft)	<u></u>
Watershed No.	<u>17-A</u>	Chapter 93 Class.	<u>CWF</u>
Existing Use	<u></u>	Existing Use Qualifier	<u></u>
Exceptions to Use	<u>None</u>	Exceptions to Criteria	<u>None</u>

Assessment Status	<u>Attaining Use(s)</u>
Cause(s) of Impairment	<u></u>
Source(s) of Impairment	<u></u>
TMDL Status	<u></u> Name <u></u>

Background/Ambient Data	Data Source
pH (SU)	<u></u>
Temperature (°F)	<u></u>
Hardness (mg/L)	<u></u>
Other:	<u></u>

Nearest Downstream Public Water Supply Intake	<u>PA American Water Co.</u>		
PWS Waters	<u>Clarion River</u>	Flow at Intake (cfs)	<u>195.14</u>
PWS RMI	<u>34.1 miles</u>	Distance from Outfall (mi)	<u>Approx.. 60 miles</u>

Changes Since Last Permit Issuance: None

Other Comments: Calculated using the Clarion River @ Johnsonburg & @ Ridgway(for accrued flow) gages

Treatment Facility Summary

Treatment Facility Name: Ridgway Borough STP

WQM Permit No.	Description
2493402	Screening, Grit Removal, Chemical Addition, Oxidation Ditch, Secondary Clarification, Disinfection, Aerated Flow EQ (off-line), Aerobic Digestion, Gravity Belt Thickener, Sludge Drying Beds and a Sludge Storage Shelter.
2493402-A1	Effluent Diffuser
2493402-A2	Organic re-rating from 2,050 l/day of BOD to 4,430 lb/day

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary	Oxidation Ditch	Gas Chlorine	2.2

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
2.2	4430	Not Overloaded	Aerobic Digestion, Gravity Belt Thickening, Sludge Drying Beds and a Sludge Storage Shelter.	

Changes since last permit issuance: None

Development of Effluent Limitations

Outfall No. 001 Latitude 41° 25' 10" Wastewater Description: Effluent	Design Flow (MGD) 2.2 Longitude -78° 45' 00"
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Technology-Based Limitations

The following technology-based limitations apply, subject to water quality analysis and BPJ where applicable:

Pollutant	Limit (mg/l)	SBC	Federal Regulation	State Regulation
CBOD ₅	25	Average Monthly	133.102(a)(4)(i)	92a.47(a)(1)
	40	Average Weekly	133.102(a)(4)(ii)	92a.47(a)(2)
Total Suspended Solids	30	Average Monthly	133.102(b)(1)	92a.47(a)(1)
	45	Average Weekly	133.102(b)(2)	92a.47(a)(2)
pH	6.0 – 9.0 S.U.	Min – Max	133.102(c)	95.2(1)
Fecal Coliform (5/1 – 9/30)	200 / 100 ml	Geo Mean	-	92a.47(a)(4)
Fecal Coliform (5/1 – 9/30)	1,000 / 100 ml	IMAX	-	92a.47(a)(4)
Fecal Coliform (10/1 – 4/30)	2,000 / 100 ml	Geo Mean	-	92a.47(a)(5)
Fecal Coliform (10/1 – 4/30)	10,000 / 100 ml	IMAX	-	92a.47(a)(5)
Total Residual Chlorine	0.5	Average Monthly	-	92a.48(b)(2)
Total Dissolved Solids	76,299 lb/day	Average Monthly	-	95.10(a)(1)
Total Dissolved Solids	183,826 lb/day	Daily Maximum	-	95.10(a)(1)

Comments: The proposed changes in this amendment do not affect any of the current technology based limits.

Water Quality-Based Limitations

A "Reasonable Potential Analysis" was not performed for this amendment. The previous renewal permit evaluation is still valid.

The following limitations were determined through water quality modeling:

Parameter	Limit	SBC	Model
Ammonia-Nitrogen	108 mg/l	Average Monthly	WQM 7
Ammonia-Nitrogen	216 mg/l	IMAX	N.A.
Fluoride	2035 lb/day	Average Monthly	PENTOXSD
Fluoride	3050 lb/day	IMAX	PENTOXSD

Comments: The proposed changes in this amendment do not affect any of the current water quality based limits.

Best Professional Judgment (BPJ) Limitations

Comments: N/A

Additional Considerations

According to the app. the resulting load increase would be 4,100 lb/day ave. and 4,442 lb/day max. This would not be considered a new or increased load under Chap. 95.10(a)(7). Their currently permitted (grandfathered) TDS load is 76,299 lb/day and they are only discharging an average of 22,372 lb/day ave. and 32,442 lb/day max. This TDS increase would not cause the effluent quality to be anywhere near their limit.

Special Condition 6 is being revised to authorize the treatment of an additional 5,000 gallons/day of natural gas wastewater from shallow well operations. This increases the total amount of this wastewater from 20,000 to 25,000 lb/day.

Proposed Effluent Limitations and Monitoring Requirements

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Sample frequencies and types are derived from the "NPDES Permit Writer's Manual" (362-0400-001) and/or BPJ.

Outfall 001, Effective Period: Permit Effective Date (Amendment) through Permit Expiration Date

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) ⁽¹⁾		Concentrations (mg/L)				Minimum ⁽²⁾ Measurement Frequency	Required Sample Type
	Average Monthly	Weekly Average	Minimum	Average Monthly	Weekly Average	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	Continuous	Measured
pH (S.U.)	XXX	XXX	6.0	XXX	9.0 Max	XXX	1/day	Grab
Total Residual Chlorine (TRC)	XXX	XXX	XXX	0.5	XXX	1.6	1/day	Grab
Carbonaceous Biochemical Oxygen Demand (CBOD5)	460	735	XXX	25	40	50	2/week	24-Hr Composite
Total Suspended Solids	550	825	XXX	30	45	60	2/week	24-Hr Composite
Total Dissolved Solids	76299	183826 Daily Max	XXX	Report	Report Daily Max	XXX	2/quarter*	24-Hr Composite
Osmotic Pressure (mOs/kg)	XXX	XXX	XXX	Report	XXX	XXX	1/quarter	24-Hr Composite
Fecal Coliform (CFU/100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	2/week	Grab
Fecal Coliform (CFU/100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	2/week	Grab
Ammonia-Nitrogen	1981	XXX	XXX	108	XXX	216	2/week	24-Hr Composite
Barium, Total	XXX	XXX	XXX	Report	XXX	XXX	1/quarter	24-Hr Composite
Fluoride, Total	2035	3050	XXX	Report	Report	XXX	1/week	24-Hr Composite
Strontium, Total	XXX	XXX	XXX	Report	XXX	XXX	1/quarter	24-Hr Composite
Sulfate, Total	XXX	XXX	XXX	Report	XXX	XXX	1/quarter	24-Hr Composite
Uranium, Total (pCi/L)	XXX	XXX	XXX	Report	XXX	XXX	1/quarter	24-Hr Composite

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) ⁽¹⁾		Concentrations (mg/L)				Minimum ⁽²⁾ Measurement Frequency	Required Sample Type
	Average Monthly	Weekly Average	Minimum	Average Monthly	Weekly Average	Instant. Maximum		
Chloride	XXX	XXX	XXX	Report	XXX	XXX	1/quarter	24-Hr Composite
Bromide	XXX	XXX	XXX	Report	XXX	XXX	1/quarter	24-Hr Composite
Gross Alpha Radioactivity (pCi/L)	XXX	XXX	XXX	Report	XXX	XXX	1/quarter	24-Hr Composite
Radium-226 and Radium-228, Total (pCi/L)	XXX	XXX	XXX	Report	XXX	XXX	1/quarter	24-Hr Composite

* - The two quarterly samples shall be collected within the same calendar month.
Quarterly sampling shall be based on the calendar quarter.

Compliance Sampling Location: Outfall 001– after disinfection, except for flow which will be measured at the influent flow meter.

Other Comments:

The sample frequency for TDS is being changed from 1/week to 2/quarter.

The sample frequency for Barium, Bromide, Chloride, Osmotic Pressure, Sulfate, Strontium, Uranium, Gross Alpha & Radium 226/228 is being changed from 2/month to 1/quarter.

Special Condition VII. Requirement for a Radiation Protection Plan is no longer applicable since a plan was submitted and approved by the Department. This condition's language was removed from the permit.

DMR Summary:

EPA Checklist:



Ridgway STP DMR
Summary1.xlsx



Ridgway STP
amend EPA che...